

ENVIRONMENTAL PRODUCT DECLARATION

as per ISO 14025 and EN 15804+A2

Owner of the Declaration	EGO Dichtstoffwerke GmbH & Co. Betriebs KG
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-DBC-EGO-20240400-IBF5-EN
Issue date	10.01.2025
Valid to	09.01.2030

EGOPLAST FK • EGOCRYL 500 • EGO BUTYLPRIMER ECO
EGO Dichtstoffwerke GmbH & CO. Betr. KG



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ECO PLATFORM

EPD
VERIFIED





1. General Information

EGO Dichtstoffwerke GmbH & CO. Betr. KG

Programme holder

IBU – Institut Bauen und Umwelt e.V.
Hegelplatz 1
10117 Berlin
Germany

Declaration number

EPD-DBC-EGO-20240400-IBF5-EN

This declaration is based on the product category rules:

Dispersion adhesives and primers for floor coverings, 01.08.2021
(PCR checked and approved by the SVR)

Issue date

10.01.2025

Valid to

09.01.2030

Dipl.-Ing. Hans Peters
(Chairman of Institut Bauen und Umwelt e.V.)

Florian Pronold
(Managing Director Institut Bauen und Umwelt e.V.)

EGOPLAST FK ▪ EGOCRYL 500 ▪ EGO BUTYLPRIMER ECO

Owner of the declaration

EGO Dichtstoffwerke GmbH & Co. Betriebs KG
Kaltenbrunn 27
82467 Garmisch-Partenkirchen
Germany

Declared product / declared unit

1 kg EGOPLAST FK ▪ EGOCRYL 500 ▪ EGO BUTYLPRIMER ECO

Scope:

This is a manufacturer-individualised EPD based on model declaration 'Dispersion-based products, group 3' (EPD-DBC-20220148-IBF1-EN) from Deutsche Bauchemie e.V. (DBC), European Federation for Construction Chemicals (EFCC), Association of the European Adhesive and Sealant Industry (FEICA) and Industrieverband Klebstoffe e.V. (IVK) in which the product exhibiting the highest environmental impact in a particular group was selected from the group to calculate the LCA. This verified EPD entitles the holder to bear the symbol of the Institut Bauen und Umwelt e.V.. It exclusively applies to products produced in Europe and applies to a period of five years from the date of issue. This EPD may be used by members of DBC, EFCC, FEICA and IVK and their members provided. It has been proven that the respective product can be represented by this EPD.

The owner of the declaration shall be liable for the underlying information and evidence; the IBU shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

The EPD was created according to the specifications of EN 15804+A2. In the following, the standard will be simplified as *EN 15804*.

Verification

The standard EN 15804 serves as the core PCR	
Independent verification of the declaration and data according to ISO 14025:2011	
<input type="checkbox"/>	internally
<input checked="" type="checkbox"/>	externally

Matthias Schulz,
(Independent verifier)



2. Product

2.1 Product description/Product definition

This EPD comprises EGOPLAST FK ▪ EGOCRYL 500 ▪ EGO BUTYLPRIMER ECO with a Volatile Organic Compound (VOC) content ≤10 % (VOC definition according to *Decopaint Directive*). The product typically consist of organic binding agents based on synthetic and/or natural resins, mineral fillers such as chalk as well as water and smaller volumes of auxiliaries (thickening agents, defoaming agents, surface-active agents, preservatives etc.). They dry physically through evaporation of the water contained therein. They comply with manifold, often specific, functions in the construction, furnishing and repair of buildings. Using EGOPLAST FK ▪ EGOCRYL 500 ▪ EGO BUTYLPRIMER ECO decisively improves the fitness for use of structures and extends their life expectancy. The product displaying the highest environmental impacts was used as a representative product for calculating the Life Cycle Assessment results (worst-case approach). For the application and use of the products the respective national provisions apply.

2.2 Application

EGOPLAST FK ▪ EGOCRYL 500 ▪ EGO BUTYLPRIMER ECO are used for the following applications:

Module 3: Dispersion-based adhesives and sealants

As structural adhesives and sealants: structural and repair adhesives, dispersion filler compounds, joint sealants

Module 4: Dispersion-based products for waterproofing of buildings

Products for waterproofing floors and/or walls in wet rooms inside buildings

2.3 Technical Data

The density of EGOPLAST FK ▪ EGOCRYL 500 ▪ EGO BUTYLPRIMER ECO is 1,0- 2,1 g/cm³, other relevant technical data can be found in EGOs technical documentation.

Module 3: Dispersion-based adhesives and sealants

Performance characteristics in accordance with the manufacturer's technical documentation / declaration of performance

Module 4: Dispersion-based products for waterproofing of buildings

The minimum requirement of *EAD 030352-00-0503* -Liquid applied watertight covering kits for wet room floors and/or walls- must be maintained. The essential characteristics are to be specified in accordance with the European technical assessment (ETA, specification no.).

Constructional data

Name	Value	Unit
Density	1,0	g/cm ³
Skin formation time	30	Min
Temperature resistance	-30 bis +80	°C

2.4 Delivery status

Liquid or pasty in containers made of plastic or metal. Typical container sizes contain 1 to 30 kg, usually 10 to 20 kg of product on pallets. For larger applications, vats with approx. volumes of 200 kg (litres) or IBCs (intermediate bulk containers) with a capacity of 1 tonne (m³) or more are also used. A plastic container was modelled for the Life Cycle Assessment.

2.5 Base materials/Ancillary materials

Dispersion-based products usually comprise at least one synthetic resin dispersion, natural or synthetic resins dispersed in water, mineral fillers (e.g. chalk) and/or pigments. Auxiliaries such as thickening agents, defoaming agents, surface-active and dispersing agents as well as preservatives are used to fine-tune the product features. **Typically**, the products covered by this EPD contain the following range of base materials and auxiliaries (% by mass):

- Synthetic polymer dispersion (solids portion): 5 - 65
- Natural resins, natural resin derivatives: 0 - 25
- Mineral fillers: 0 - 60
- Pigments: 0 - 35
- Water: 15 - 95
- Auxiliaries: 1 - 5
- Thickening agents: < 3
- Dispersing agents / Emulsifying agents: < 2
- Wetting agent: 2
- Other: 0 - 2
- VOC according to *Decopaint Directive*: <10 % (**mandatory**)

These ranges are average values and the composition of products complying with the EPD can deviate from these concentration levels in individual cases. More detailed information is available in the respective manufacturer's documentation (e.g. product data sheets).

Note: For companies to declare their products within the scope of this EPD it is not sufficient to simply comply with the product composition shown above. The application of this EPD is only possible for member companies of DBC, EFCC, FEICA, and IVK member associations and only for specific formulations with a total score below the declared maximum score for a product group according to the associated guidance document.

1. substances from the 'Candidate List of Substances of Very High Concern for Authorisation' (SVHC)

This product contains substances listed in the candidate list (date: 14.06.2023) exceeding 0.1 percentage by mass: no.

2. CMR substances in categories 1A and 1B

This product contains other CMR substances in categories 1A or 1B which are not on the candidate list, exceeding 0.1 percentage by mass: no.

3. Biocide products added to the construction product

Biocide products were added to this construction product or it has been treated with biocide products (this then concerns a treated product as defined by the (EU) Ordinance on Biocide Products No. 528/2012): yes. EGOPLAST FK ▪ EGOCRYL 510 ▪ EGO BUTYLPRIMER ECO contain reaction mass of 5-Chlor-2-methyl-2H-isothiazol-3-on und 2-Methyl-2H-isothiazol-3-on (3:1), 1,2-Benzisothiazol-3(2H)-on; 1,2-Benzisothiazolin-3-on.



2.6 Manufacture

Dispersion-based products are usually mixed discontinuously in batch mode, i.e. in individual batches or a series of individual batches, and filled into the delivery containers.

2.7 Environment and health during manufacturing

As a general rule, no particular environmental or health protection measures other than those specified by law are necessary.

2.8 Product processing/Installation

Dispersion based products are processed on site using suitable tools, usually by hand. The products are applied by trowelling/knife-coating, painting, rolling or spraying.

Precautions for safe handling and storage (e.g. air exchange, exhaust ventilation, personal protective measures, conditions for safe storage) must be observed in accordance with the information on the safety data sheet.

Depending on the application and product specifications, between 50 and 1,500 g/m² are applied.

2.9 Packaging

A detailed description of packaging is provided in section 2.4. Empty containers and clean foils can be recycled.

2.10 Condition of use

During the use phase dispersion-based products are existent as hardened film.

They are long-lasting products which protect our buildings in the form of adhesives, primers, coatings or sealants as well as make an essential contribution towards their appearance, function and sustainability.

2.11 Environment and health during use

Option 1 – Products for applications outside indoor areas with permanent stays by people

No risks are known for water, air and soil if the products are used as designated.

Option 2 – Products for applications inside indoor areas with permanent stays by people

When used in indoor areas with permanent stays by people, evidence of the emission performance of construction products in contact with indoor air must be submitted according to national requirements (see chapter 7). No further influences by emissions on the environment and health are known.

2.12 Reference service life

Dispersion-based products fulfil manifold, often specific, functions in the construction or refurbishment of building structures. They decisively improve the usability of building structures and significantly extend their original service lives. The anticipated reference service life depends on the specific installation situation and the exposure associated with the

product. It can be influenced by weathering as well as mechanical or chemical load.

2.13 Extraordinary effects

Fire

In terms of the volumes applied, dispersion based products have no or only a marginal influence on the fire performance characteristics of the building structure in which they have been installed.

Water

Dispersion-based products are water-resistant only to a certain degree and their strength can deteriorate when exposed to water for longer periods (of time); detaching from the surface is possible in a worst-case scenario. The components of dispersion-based products are not hazardous to water or only slightly hazardous to water. Owing to the overall low volumes of dispersion-based products used on buildings, no relevant contribution towards environmental damage can be anticipated by buildings featuring dispersion-based products in the event of extraordinary exposure to water.

Mechanical destruction

The mechanical destruction of dispersion-based products does not lead to any decomposition products which are harmful to the environment or health.

2.14 Re-use phase

According to present knowledge, no environmentally hazardous effects in terms of landfilling are to be generally anticipated through dismantling and recycling components to which dispersion-based products have been applied and on which they have dried.

2.15 Disposal

The low amounts of a dispersion-based product applied to a construction product will not interfere with the disposal/recycling of this.

Hardened product residue mechanically removed from substrates must be disposed of as commercial/construction waste. The following waste codes according to the European List of Waste (2000/532/EC) can apply:

Hardened product residue:

080112 Paint and varnish waste with the exception of that covered by 08 01 11 080410 Adhesive and sealant compound waste with the exception of that covered by 08 04 09

2.16 Further information

More information is available on the manufacturer's product or safety data sheets and is available on the manufacturer's websites or on request. Valuable technical information is also available on the associations' websites.

3. LCA: Calculation rules

3.1 Declared Unit

This EPD refers to the declared unit of 1 kg of dispersion-based product, group 3; applied into the building with a density of 1,000 - 2,100 kg/m³ in accordance with the *IBU PCR* part B for dispersion adhesives and primers for floor coverings.

The results of the Life Cycle Assessment provided in this declaration have been selected from the product with the highest environmental impact (worst-case scenario).

Depending on the application, a corresponding conversion factor such as the density to convert volumetric use to mass

must be taken into consideration.

The Declaration type is according to *EN 15804*: Cradle to gate with options, modules C1–C3, and module D (A1–A3, C, D) and additional modules (A4–A5).

Declared unit

Name	Value	Unit
Declared unit	1	kg
Gross density	1,0 -2,1	kg/m ³
Productiveness	10000	kg/m ²
Layer thickness	12	mm



3.2 System boundary

Modules A1, A2 and A3 are taken into consideration in the LCA:

- A1 Production of preliminary products
- A2 Transport to the plant
- A3 Production incl. provision of energy, production of packaging as well as auxiliaries and consumables and waste treatment
- A4 Transport to site
- A5 Installation, product applied into the building during A5 phase operations and packaging disposal. This stage considers VOC emissions during the installation phase. The declared product does not contain substances in the formulation that directly emit as VOC, but VOCs are generated by a chemical reaction that occurs during this phase. The end of life for the packaging material considered is described below:

-Incineration, for materials like plastic and wood.

-C1-C2-C3-D

The building deconstruction (demolition process) takes place in C1 module which considers energy production and consumption in terms of diesel and all the emissions connected with the fuel-burning process to run the machines. After the demolition, the product is transported to the end-of-life processing (C2 module) where all the impacts related to the transport processes are considered. For precautionary principle and as a worst-case scenario, thermal treatment is the only end of life scenario considered. This is modelled by the incineration process (module C3) where the product ends its life cycle.

Module D accounts for potential benefits that are beyond the defined system boundaries. Credits are generated during the incineration of wastes and related electricity produced that are occurring in A5 module.

3.3 Estimates and assumptions

For this EPD formulation and production data defined and collected by FEICA were considered. Production waste was assumed to be disposed of by incineration without credits as a worst case.

An average of plastic containers and wooden pallets was

considered in the LCA.

3.4 Cut-off criteria

All raw materials submitted for the formulations and production data were taken into consideration.

The manufacture of machinery, plant and other infrastructure required for the production of the products under review was not taken into consideration in the LCA.

Transport of packaging materials is excluded.

3.5 Background data

Data from the *GaBi* database SP40 (2020) was used as background data.

3.6 Data quality

Representative products were applied for this EPD and the product in the group displaying the highest environmental impact was selected for calculating the LCA results. The background datasets used are less than 4 years old.

Production data and packaging are based on details provided by the manufacturer. The formulation used for evaluation refers to a specific product.

The data quality of the background data is considered to be good.

3.7 Period under review

Representative formulations are valid for 2021.

3.8 Geographic Representativeness

Land or region, in which the declared product system is manufactured, used or handled at the end of the product's lifespan: Europe

3.9 Allocation

Mass allocation has been applied when primary data have been used and implemented into the LCA model.

3.10 Comparability

Basically, a comparison or an evaluation of EPD data is only possible if all the data sets to be compared were created according to *EN 15804* and the building context, respectively the product-specific characteristics of performance, are taken into account. The *GaBi* database SP40 (2020) was used.

4. LCA: Scenarios and additional technical information

Characteristic product properties of biogenic carbon

The packaging material contains biogenic carbon content which is presented below.

Information on describing the biogenic Carbon Content at factory gate

Name	Value	Unit
Biogenic carbon content in product	-	kg C
Biogenic carbon content in accompanying packaging	0.016	kg C

For the preparation of building life cycle assessments, it must be taken into account that in module A5 (installation in the building) the biogenic amount of CO₂ (0.016 kg C * 3.67 = 0.059 kg CO₂-eq.) of the packaging bound in module A1-A3 is mathematically booked out.

Transport to the building site (A4)

Name	Value	Unit
Transport distance	-	km
Gross weight	34 - 40	t
Payload capacity	27	t

Installation into the building (A5)

Name	Value	Unit
Material loss	0.01	kg
Other resources for packaging material	0.067	kg

Material loss regards the amount of product not used during the application phase into the building. This amount is 1 % of the product, impacts related to the production of this part are charged to the A5 module. This percentage is considered as



waste to disposal and impacts of its end of life have been considered in the LCA model and declared in A5.

Due to incineration of the product in C3, module C4 is not relevant and indicator results are zero.

End of life (C1-C3)

Name	Value	Unit
Collected as mixed construction waste	0.836	kg
Incineration	0.836	kg

5. LCA: Results

DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE OR INDICATOR NOT DECLARED; MNR = MODULE NOT RELEVANT)

Product stage			Construction process stage		Use stage							End of life stage				Benefits and loads beyond the system boundaries
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	MND	MND	MNR	MNR	MNR	MND	MND	X	X	X	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT according to EN 15804+A2: 1 kg of dispersion-based product, group 3

Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq	2.6E+00	5.11E-02	1.86E-01	2.33E-04	1.04E-02	7.9E-01	0	-3.43E-01
GWP-fossil	kg CO ₂ eq	2.64E+00	5.06E-02	1.01E-01	2.23E-04	9.9E-03	3.59E-01	0	-3.42E-01
GWP-biogenic	kg CO ₂ eq	-4.72E-02	1.48E-04	8.53E-02	1.03E-05	4.54E-04	4.31E-01	0	-7.74E-04
GWP-luluc	kg CO ₂ eq	5.01E-03	4.1E-04	5.16E-05	5.35E-09	2.34E-07	2.93E-05	0	-2.17E-04
ODP	kg CFC11 eq	7.23E-10	6.08E-18	7.23E-12	2.37E-20	1.04E-18	2.53E-16	0	-3.22E-15
AP	mol H ⁺ eq	1.33E-02	1.52E-04	1.57E-04	3.01E-06	3.12E-05	4.39E-04	0	-4.55E-04
EP-freshwater	kg P eq	7.54E-05	1.54E-07	7.57E-07	4.81E-11	2.1E-09	8.66E-08	0	-4E-07
EP-marine	kg N eq	2.39E-03	6.75E-05	3.12E-05	1.37E-06	1.43E-05	1.68E-04	0	-1.2E-04
EP-terrestrial	mol N eq	2.35E-02	7.56E-04	3.48E-04	1.5E-05	1.58E-04	2.11E-03	0	-1.29E-03
POCP	kg NMVOC eq	7.66E-03	1.33E-04	9.65E-05	4.11E-06	2.83E-05	4.36E-04	0	-3.47E-04
ADPE	kg Sb eq	1.65E-06	3.63E-09	1.68E-08	6.74E-12	2.94E-10	3.86E-09	0	-5.24E-08
ADPF	MJ	4.94E+01	6.73E-01	5.26E-01	3.19E-03	1.39E-01	4.62E-01	0	-5.79E+00
WDP	m ³ world eq deprived	4.24E-02	4.52E-04	1.68E-02	4.4E-07	1.92E-05	1.31E-01	0	-3.2E-02

GWP = Global warming potential; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential of land and water; EP = Eutrophication potential; POCP = Formation potential of tropospheric ozone photochemical oxidants; ADPE = Abiotic depletion potential for non-fossil resources; ADPF = Abiotic depletion potential for fossil resources; WDP = Water (user) deprivation potential

RESULTS OF THE LCA - INDICATORS TO DESCRIBE RESOURCE USE according to EN 15804+A2: 1 kg of dispersion-based product, group 3

Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	3.95E+00	3.79E-02	6.36E-01	1E-05	4.39E-04	7.83E-02	0	-1.15E+00
PERM	MJ	5.85E-01	0	-5.85E-01	0	0	0	0	0
PERT	MJ	4.54E+00	3.79E-02	5.12E-02	1E-05	4.39E-04	7.83E-02	0	-1.15E+00
PENRE	MJ	4.21E+01	6.74E-01	2.53E+00	3.19E-03	1.39E-01	5.81E+00	0	-5.79E+00
PENRM	MJ	7.35E+00	0	-2E+00	0	0	-5.35E+00	0	0
PENRT	MJ	4.95E+01	6.74E-01	5.26E-01	3.19E-03	1.39E-01	4.62E-01	0	-5.79E+00
SM	kg	0	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0
FW	m ³	2.02E-02	4.38E-05	5.86E-04	1.8E-08	7.87E-07	3.1E-03	0	-1.33E-03

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

RESULTS OF THE LCA - WASTE CATEGORIES AND OUTPUT FLOWS according to EN 15804+A2: 1 kg of dispersion-based product, group 3

Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
HWD	kg	1.55E-05	3.14E-08	1.55E-07	3.09E-13	1.35E-11	1.48E-09	0	-2.3E-09
NHWD	kg	3.84E-01	1.03E-04	6.06E-03	3.26E-07	1.42E-05	1.14E-01	0	-2.54E-03
RWD	kg	1.05E-03	8.34E-07	1.23E-05	3.42E-09	1.49E-07	2.1E-05	0	-3.91E-04
CRU	kg	0	0	0	0	0	0	0	0
MFR	kg	0	0	0	0	0	0	0	0
MER	kg	0	0	0	0	0	0	0	0
EEE	MJ	0	0	2.77E-01	0	0	0	0	0
EET	MJ	0	0	5.01E-01	0	0	0	0	0



HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy

**RESULTS OF THE LCA – additional impact categories according to EN 15804+A2-optional:
1 kg of dispersion-based product, group 3**

Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PM	Disease incidence	ND	ND	ND	ND	ND	ND	ND	ND
IR	kBq U235 eq	ND	ND	ND	ND	ND	ND	ND	ND
ETP-fw	CTUe	ND	ND	ND	ND	ND	ND	ND	ND
HTP-c	CTUh	ND	ND	ND	ND	ND	ND	ND	ND
HTP-nc	CTUh	ND	ND	ND	ND	ND	ND	ND	ND
SQP	SQP	ND	ND	ND	ND	ND	ND	ND	ND

PM = Potential incidence of disease due to PM emissions; IR = Potential Human exposure efficiency relative to U235; ETP-fw = Potential comparative Toxic Unit for ecosystems; HTP-c = Potential comparative Toxic Unit for humans (cancerogenic); HTP-nc = Potential comparative Toxic Unit for humans (not cancerogenic); SQP = Potential soil quality index

Potential Human exposure efficiency relative to U235, Disclaimer 1 – This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure or radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, radon and (from) some construction materials is also not measured by this indicator.

ADP minerals & metals, ADP fossil, WDP, ETF-fw, HTP-c, HTP-nc, SQP, Disclaimer 2 – The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

Additional environmental impact indicators (suggested by EN15804, table 4) are not declared in the EPD. The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high and as there is limited experience with the indicator (see ILCD classification in EN 15804, table 5). For this reason, results based on these indicators are not considered suitable for a decision-making process and are thus not declared in the EPD.

6. LCA: Interpretation

The majority of impacts are associated with the production phase (A1-A3). The most significant contribution to the production phase impacts is the upstream production of raw materials as the main driver. Another contributor in the production phase, in the category of Photochemical ozone formation (POCP), is the plastic used as a packaging material. Emissions associated with the manufacturing of products also have some influence on Ozone Depletion Potential (ODP) in the production phase. In all EPDs, CO₂ is the most important contributor to Global Warming Potential (GWP). For the Acidification Potential (AP), NO_x and SO₂ contribute the largest share.

The majority of life cycle energy consumption takes place during the production phase (A1-A3). Significant contributions to Primary Energy Demand – Non-renewable (PENRT) come from the energy resources used in the production of raw materials. The largest contributor to Primary Energy Demand – Renewable (PERT) impacts comes from the consumption of renewable energy resources required for the generation and supply of electricity. It should be noted

that Primary Energy Demand – Renewable (PERT) generally represents a small percentage of the production phase primary energy demand with the bulk of the demand coming from non-renewable energy resources.

Transportation to the construction site (A4) and the installation process (A5) make a low contribution to all impacts. Climate change from land use change is the only indicator influenced by transport processes, due to the diesel production used as fuel because part of this diesel has been produced from bio-based raw materials.

The installation phase influence mainly climate change indicators, due to the impact related to the incineration processes used for packaging waste treatment and residual product treatment (1% of the total mass).

The end-of-life phases influence climate change indicators, due to the thermal treatment process of the dispersion-based product occurring in the C3 module.

7. Requisite evidence

VOC EGOPLAST FK • EGOCRYL 500 • EGO BUTYLPRIMER ECO was tested in accordance with the test criteria "GEV-EMICODE classification criteria/requirements for emission-controlled flooring installation materials, adhesives and building products" of the German Association for Emission Controlled Flooring Installation Materials, Adhesives and Building Products (GEV). ecoINSTITUT Germany GmbH carried out the test and confirmed in its report dated 8 November 2019 that the emission class EMICODE EC1 PLUS was achieved as the test target. The table shown below shows the measured results and the corresponding assessment based on the EMICODE.

Prüfparameter	Ergebnis	Anforderung	Anforderung erfüllt [ja/nein]
Emissionsanalysen			
Messzeitpunkt: 3 Tage nach Prüfkammer-beladung			
K1A und 1B-Stoffe (gem. EU-Einstufung und TRGS 905, Summe)	< 1 µg/m ³	≤ 10 µg/m ³	ja
Formaldehyd	< 2 µg/m ³	≤ 50 µg/m ³	ja
Acetaldehyd	< 2 µg/m ³	≤ 50 µg/m ³	ja
Acetaldehyd und Formaldehyd (Summe)	< 0,002 ppm	≤ 0,05 ppm ¹⁾	ja
Gesamtkonzentration flüchtiger organischer Stoffe ohne Berücksichtigung der Essigsäure (TVOC (DIN EN 16516) ^{2) 3)}	93 µg/m ³	≤ 750 µg/m ^{3 3)}	ja, EC 1 PLUS
Messzeitpunkt: 28 Tage nach Prüfkammerbeladung			
K1A und 1B-Stoffe (gem. EU-Einstufung und TRGS 905, Summe)	< 1 µg/m ³	≤ 1 µg/m ³	ja
Gesamtkonzentration flüchtiger organischer Stoffe ohne Berücksichtigung der Essigsäure (TVOC (DIN EN 16516) ^{2) 3)}	8 µg/m ³	≤ 60 µg/m ^{3 3)}	ja, EC 1 PLUS
Gesamtkonzentration schwerflüchtiger organischer Stoffe (TSVOC (DIN EN 16516) ²⁾	< 5 µg/m ³	≤ 40 µg/m ^{3 3)}	ja, EC 1 PLUS
Summe VOC ohne NIK	< 5 µg/m ³	≤ 40 µg/m ^{3 4)}	ja
R-Wert	0,03	≤ 1 ⁴⁾	ja

¹⁾ 1 ppm Formaldehyd ≙ 1250 µg/m³ Formaldehyd; 1 ppm Acetaldehyd ≙ 1020 µg/m³ Acetaldehyd

²⁾ für TVOC und TSVOC werden nur Substanzen ≥ 5 µg/m³ berücksichtigt

³⁾ Anforderungswert für Emissionsklasse EMICODE EC 1 PLUS

⁴⁾ zusätzlicher Anforderungswert für Emissionsklasse EMICODE EC 1 PLUS

⁵⁾ In der Bewertung für den EMICODE findet Essigsäure keine Berücksichtigung

8. References

EN 1062-3

EN 1062-3:2008-04, Paints and varnishes - Coating materials and coating systems for exterior masonry and concrete - Part 3: Determination of liquid water permeability

EN 1062-6

EN 1062-6:2002-10, Paints and varnishes - Coating materials and coating systems for exterior masonry and concrete - Part 6: Determination of carbon dioxide permeability

EN 1504-2

EN 1504-2:2004-10, Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and evaluation of conformity - Part 2: Surface protection systems for concrete

EN 1542

EN 1542:1999-07, Products and systems for the protection and repair of concrete structures - Test methods - Measurement of bond strength by pull-off

EN ISO 7783-1/-2

EN ISO 7783-1/-2:2019-02, Paints and varnishes - Determination of water-vapour transmission properties - Cup method

EN 12004

EN12004:2012, Adhesives for ceramic tiles

EN 12004-2

EN 12004-2:2017, Adhesives for ceramic tiles - Part 2: Test methods

ISO 14025

DIN EN ISO 14025:2011-10, Environmental labels and declarations — Type III environmental declarations — Principles and procedures

EN 15804

EN 15804:2019+A2+AC, Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products.

EN 16516

EN 16516:2017

Construction products - Assessment of release of dangerous substances - Determination of emissions into indoor air

EN ISO 17025

EN ISO 17025: 2018-03 General requirements for the competence of testing and calibration laboratories

EN ISO 17178

EN ISO 17178:2020, Adhesives - Adhesives for bonding parquet to subfloor - Test methods and minimum requirements

EN ISO 22636

EN ISO 22636:2020, Adhesives - Adhesives for floor coverings - Requirements for mechanical and electrical performance

EAD 030352-00-0503

EAD 030352-00-0503:2019-01, Watertight covering kits for wet room floors and or walls Part 1: Liquid Applied Coverings with or without wearing surface Part 2: Kits based on flexible sheets Part 3: Kits based on inherently watertight boards

(EU) No 528/2012

Biocidal Products Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products (current consolidated version: 2021-06)

2000/532/EC

Commission decision dated 3 May 2000 replacing decision 94/3/EC on a waste directory in accordance with Article 1 a) of Council Directive 75/442/EEC on waste and Council decision 94/904/EC on a directory of hazardous waste in terms of Article 1, paragraph 4 of Directive 91/689/EEC on hazardous waste

Belgian Royal Decree C-2014/24239

Belgisch Staatsblad 8 MEI 2014, p. 60603. — Koninklijk besluit tot vaststelling van de drempelniveaus voor de emissies naar het binnenmilieu van bouwproducten voor bepaalde geogde gebruiken



Blue Angel

Environmental label organised by the federal government of Germany www.blauer-engel.de

Candidate list

Candidate List of substances of very high concern for Authorisation, published in accordance with Article 59(10) of the REACH Regulation, ECHA, www.echa.europa.eu/candidate-list-table

CPR

CPR Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC

Decopaint Directive

Directive 2004/42/CE of the European Parliament and the council of 21 April 2004 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC

EMICODE

EMICODE, GEV – Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e. V. ([pub.](http://pub.www.emicode.de))www.emicode.de

GaBi 10 software & documentation

Data base for Life Cycle Engineering LBP, University of Stuttgart and Sphera, documentation of GaBi 10 data sets <http://documentation.gabi-software.com/>, 2020

German AgBB

Committee for Health-related Evaluation of Building Products: health-related evaluation of emissions of volatile organic compounds (VOC and SVOC) from building products; status: June 2012
www.umweltbundesamt.de/produkte/bauprodukte/agbb.htm

IBU 2021

Institut Bauen und Umwelt e.V.: General Instructions for the EPD programme of Institut Bauen und Umwelt e.V. EPD programme.
Version 2.0. Berlin: Institut Bauen und Umwelt e.V., 2021
www.ibu-epd.com

Indoor Air Comfort

Product certification by Eurofins, Hamburg, Germany
www.eurofins.com

PCR Part A

Product Category Rules for Building-Related Products and Services, Part A: Calculation Rules for the Life Cycle Assessment and Requirements on the Project report, Version 1.1, Institut Bauen und Umwelt e.V., 2021-01

PCR Part B

Product Category Rules for Construction Products. Part B: Dispersion adhesives and primers for floor coverings, Version 1.7, 2019.

REACH

Directive (EG) No. 1907/2006 of the European Parliament and of the Council dated 18 December 2006 on the registration, evaluation, approval and restriction of chemical substances (REACH), for establishing a European Agency for chemical substances, for amending Directive 1999/45/EC and for annulment of Directive (EEC) No. 793/93 of the Council, Directive (EC) No. 1488/94 of the Commission, Guideline 76/769/EEC of the Council and Guidelines 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC of the Commission.
The literature referred to in the Environmental Product Declaration must be listed in full. Standards already fully quoted in the EPD do not need to be listed here again.
The current version of PCR Part A and PCR Part B of the PCR document on which they are based must be referenced.



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